

CLAIMS

We claim:

1. A computer-implemented method for stylizing data comprising:
obtaining a domain object comprising an object representation of data
5 stored in a database for a domain entity;
obtaining an application object comprising an object representation of the
data in the domain object that is relevant for a particular computer application; and
obtaining a presentation object comprising an object representation that
encapsulates a visual appearance of the data in the application object.
10
2. The method of claim 1 wherein the domain object contains all
information about the domain entity that the domain object represents.
3. The method of claim 1 further comprising a stylization agent object
15 obtaining the application object for the domain object based on a stylization
context, wherein the stylization context identifies only that data relevant for the
particular computer application.
4. The method of claim 1 wherein the application object further
20 comprises business logic that provides functionality for the particular application.
5. The method of claim 1 further comprising a stylization agent object
obtaining the presentation object for the application object based on a stylization

context, wherein the stylization context identifies a visual appearance for the data in the application object.

6. The method of claim 1 further comprising obtaining a stylizer
5 object, wherein the stylizer object comprises:
- a data object selected from a group comprising the domain object and application object;
 - a stylization context object, wherein the stylization context object comprises a stylization context;
 - 10 a stylization agent;
 - a mapping of the stylization agent to a paired index of data objects and stylization context objects; and
 - a stylize method that invokes an appropriate stylization agent based on the mapping.

15

7. The method of claim 6 wherein the paired index is a two-dimensional array of stylization agents indexed by a data object class and stylization context.

20

8. The method of claim 1 further comprising caching the application object.

9. The method of claim 1 further comprising caching the presentation

24. The apparatus of claim 13 wherein the domain entity is a geographic information system (GIS) domain entity.

25. An article of manufacture comprising a program storage medium
5 readable by a computer and embodying one or more instructions executable by the computer to perform a method for stylizing data in an object-oriented computer system, the method comprising:

obtaining a domain object comprising an object representation of data stored in a database for a domain entity;

10 obtaining an application object comprising an object representation of the data in the domain object that is relevant for a particular computer application; and

obtaining a presentation object comprising an object representation that encapsulates a visual appearance of the data in the application object.

15 26. The article of manufacture of claim 25 wherein the domain object contains all information about the domain entity that the domain object represents.

27. The article of manufacture of claim 25 wherein a stylization agent object obtains the application object for the domain object, wherein the stylization
20 context identifies contains only that data relevant for the particular computer application.

28. The article of manufacture of claim 25 wherein the application

447,032,660

object further comprises business logic that provides functionality for the particular application.

29. The article of manufacture of claim 25 wherein a stylization agent
5 object obtains the presentation object for the application object based on a stylization context, wherein the stylization context identifies a visual appearance for the data in the application object.

30. The article of manufacture of claim 29, the method further
10 comprising obtaining a stylizer object, wherein the stylizer object comprises:
a domain object selected from a group comprising the domain object and application object;
a stylization context object, wherein the stylization context object comprises a stylization context;
15 a stylization agent;
a mapping of the stylization agent to a paired index of data objects and stylization context objects; and
a stylize method that invokes an appropriate stylization agent based on the mapping.

20

31. The article of manufacture of claim 30 wherein the paired index is a two-dimensional array of stylization agents indexed by a data object class and stylization context.

32. The article of manufacture of claim 25, the method further comprising caching the application object.

5 33. The article of manufacture of claim 25, the method further comprising caching the presentation object.

34. The article of manufacture of claim 25 wherein the domain entity is a mechanical domain entity.

10

35. The article of manufacture of claim 25 wherein the domain entity is an architecture, engineering and construction (AEC) domain entity.

36. The article of manufacture of claim 25 wherein the domain entity is
15 a geographic information system (GIS) domain entity.